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AN  
INQUIRY  
INTO THE  
Origin and Effects  
OF  
SULPHUROUS FUMIGATIONS,

IN THE CURE OF  
RHEUMATISM, GOUT, DISEASES OF THE SKIN, PALSY, &c.

ILLUSTRATED BY NUMEROUS CASES.

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"I am particularly induced to think well of sulphurous fumigations, by the aid of which one obtains results, almost miraculous, precisely in those cases where other remedies almost always fail."

*Redacteur de la Gazette de Santé.*

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# SULPHUROUS FUMIGATIONS.

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## CHAPTER I.

### *Origin of Sulphurous Fumigations.*

THE application of sulphurous fumigation in the cure of diseases, has within a few years excited much attention in Europe. Nor can we feel surprise at this, when we recollect, that the diseases in which its efficacy has been found the most remarkable, and its beneficial effects universally acknowledged, are the most painful and loathsome to which mankind is subject. Diseases, from which no age, sex or condition in life is exempt, and which, from their ungovernable nature, have heretofore been considered the opprobrium of the medical art. The remedy has not been introduced into this country for a sufficient length of time to have attracted much public attention. The only accounts of it, which have been published in the United States, are a short, but interesting review of Dr. De Carro's practical observations on sulphurous fumigations, in the Medical Recorder, and a valuable paper in the Philadelphia Journal of the Medical and Physical Sciences, on the Efficacy of Sulphurous Fumigations, by Dr. Emerson.

But these papers are only designed for professional men; and, as they have been published but in two medical journals, the information to be derived from them must necessarily be confined to a part of the profession. I have thought that it would be promoting the cause of science and humanity, to give an account of this remedy more suitable to the general reader, and which may tend to diffuse more universally, a knowledge of this valuable medical agent.

It is my intention, therefore, in the following pages, to put the reader in possession of the most remarkable and well authenticated facts and circumstances that have come to my knowledge, which go to establish the efficacy of this remedy. For this purpose, I shall in the first place give a short history of sulphurous fumigations, and the testimony which has been furnished in favour of them, by the highest medical authorities in Europe. I will then describe the mode of applying them, and the sensible effects they produce, and conclude with some of the most remarkable cases which have occurred to Dr. Emerson, of Philadelphia, and in my own practice in Baltimore.

The use of fumigation as a medical agent, is by no means a modern invention, but is almost coeval with the history of medicine. They were employed by the ancient physicians in a variety of forms, and seem to have been with them a favourite remedy. In the writings attributed to Hippocrates, which are among the earliest records of the art of medicine, fumigations of myrrh, rue, hyssop, arsenic, &c. are strongly recommended in certain diseases. But, until within a few years, we have no precise account of sulphurous fumigations having been extensively employed. Dr. Galès, of Paris, has the merit of reviving this prac-

tice, and inventing an apparatus, by which this powerful agent may be applied to the surface of the body, without the hazard of injuring any of the internal organs. By his indefatigable exertions, he has succeeded in demonstrating the perfect safety and great efficacy of this remedy. At the time he began his investigations, he was chief apothecary to the Hospital of St. Louis, which is solely devoted to diseases of the skin. He was led to adopt this practice in the course of a series of experiments, on the nature and causes of *psora* (itch.)

The cause of this loathsome disease has not been long absolutely ascertained. It was not considered by the ancient physicians a mere local affection of the skin, but was supposed to proceed "from an acrimony of the fluids, a corruption of the blood," &c. Avenzoar, an Arabian physician, in the twelfth century, first suggested the idea that it arose from a minute insect. This hint, however, did not attract attention until the sixteenth century, when Thomas Moufet, an English naturalist, having accidentally read the passage referred to, took some pains to investigate the subject in his *Theatrum Insectorum*. But as the insect is extremely minute, and of the same colour as the skin, and as at that time microscopic instruments were not invented, his observations were necessarily very imperfect. But in 1685 the subject was taken up by Cestoni, an Italian naturalist, who made a great number of curious observations on the figure, habits, &c. of this insect, which he called the *acarus scabei*. He was enabled to distinguish the eggs which it had deposited, and he found that by means of its very sharp head, it perforated the cuticle, and insinuated itself between it and the true skin.\*

\* Dictionaire des Sciences Médicales.

We shall pass over the remarks made on the natural history of this insect by Lewenhoeck, Geer, Linnæus, and other entomologists, and proceed to state the result of the inquiries of Dr. Galès. This gentleman first turned his attention particularly to the subject in 1812. He devoted three months exclusively to the investigation, during which he examined carefully, with a good microscope, more than three hundred of these insects while living; performing a great number of experiments, and making drawings of them. His observations differ, in some respects, from those of Cestoni, Geer, &c., who described the *acarus*, as resembling perfectly the mite found in flour, (*mite de la farine.*) This Dr. Galès has amply proved is not true, by a great variety of experiments, of which the following is the most conclusive. He placed a number of the mites upon the back of the hand, and covered them with a watch-glass, having first taken the precaution to warm the hand; the glass was retained by a bandage; he then placed an equal number of the living *acari* on the back of the hand, and covered them in the same manner. This was done just before going to bed. In the course of three hours he felt a slight tickling on the part where the *acari* were placed. In the morning it itched considerably; and, on examining the part, he found three small pustules, possessing the unequivocal characters of itch. But on the part where the mites were placed, nothing of the kind occurred. This experiment was repeated in various forms, in the presence of several of the most distinguished physicians of Paris.

Having thus ascertained the true nature and cause of *psora*, Dr. Galès then applied himself to discover an effectual method of removing it.

The method of cure in this disease, pursued by the best practitioners in Europe, until within a few years, and still persisted in by many in this country, is as loathsome and disgusting as the disease itself. It consists in anointing the whole surface of the body with various ointments, the principal ingredient of which is sulphur, and afterwards exposing the skin to a high temperature. It is necessary to repeat this process for several days in succession. This practice is no doubt effectual, but it is liable to many serious objections. The sufferings of the patient are for the time extreme, and the skin becomes so saturated with the sulphur, that this foul odour continues to be exhaled for weeks. The skin is also frequently thrown into a state of disease, erysipelas, phlegmons, or boils, and other cutaneous diseases being induced. Nor are these the only inconveniences attributable to this practice. The texture of the bed and other linen, becomes so soiled, that it is impossible to purify it, and the woollen wearing apparel so imbued with the smell, that it is scarcely practicable ever to remove it. These are very serious evils in large hospitals and armies, which it has long been a desideratum to remove. Innumerable attempts have been made to substitute some agent which is not liable to these objections; but it has been found by experience, that, of the infinite number of empirical and other remedies which have been proposed for the purpose, those only can be depended on, the principal ingredient of which is sulphur. It was to this point therefore, that M. Galès directed his inquiries, and in the course of his experiments he applied the fumes of sulphur to the *acarus*.

This he executed by placing them on plates of glass; he found that the application of this agent produced in-

stantaneous death. Not knowing at the time that the fumes had ever before been employed in *psora*, he had recourse to the following method. The patient was placed naked in bed, every part, excepting the head, being carefully enclosed in the bed clothes, and a pan with burning charcoal, upon which some flowers of sulphur had been thrown, was then introduced into the bed, and the fumes thus brought in contact with the whole surface of the body. By five or six applications conducted in this way, several patients were cured. But though the practice was found effectual, and free from many of the inconveniences mentioned above, yet there were several serious objections to it. It was found that, with all the precautions that could be taken, the bed linen was often burnt, and otherwise injured, and that the fumes escaped, and soon filled the room, producing violent coughing in the patient, and being insupportable to the attendants. It became therefore indispensable to contrive some mode of applying the agent by which this could be obviated. The great facilities for investigating this practice, afforded by the Hospital of St. Louis, from the numerous cases of *psora*, (itch) always existing in this establishment, enabled M. Galès soon to contrive a suitable apparatus, and to arrive at the most satisfactory results concerning the efficacy of the remedy.

Sulphurous fumigations had been recommended as a remedy in certain diseases, before the experiments of M. Galès. Glauber wrote an essay expressly on the subject, as early as 1659, and described an apparatus for the purpose of applying them, somewhat resembling that at present in use. But the subject was never fairly brought before the profession, and its practical utility demonstrated, until it was taken up by M. Galès in 1812. There is the strongest internal evidence that this gentleman at

first thought himself its inventor, so perfectly obsolete had the practice become. Accordingly, when his enemies endeavored to undervalue his merit, in having revived and reduced it to practice, M. Morgues and the duke de la Rochefoucault, the Commissaries of Hospitals, declared publicly in their report, "that its introduction into the hospitals of Paris was solely due to M Galès." As soon as the great value of this new practice became apparent, every facility was given to this gentleman that could be wished, to bring it to perfection, by Messrs. Morgue and Peligot, the Administrators of Hospitals. As the apparatus of M. Galès was imperfect, M. Darcet, a gentleman highly distinguished for his learning and happy talent in applying chemistry and natural philosophy to the arts, was solicited by the Council of Hospitals to turn his attention to the subject. This gentleman accordingly succeeded in forming an apparatus at the Hospital of St. Louis, by which every indication was perfectly accomplished, and sufficiently large to receive twelve patients at a time.

After this apparatus had gone into operation, in compliance with the orders of the Minister of the Interior, the Faculty of Medicine of Paris appointed a committee consisting of Doctors Pinel, Dubois, A. L. Tartra, Esparron, and Bouillon-Lagrange. These gentlemen, after witnessing the effects of the remedy in fifty eight cases, treated chiefly for psora, in their presence, in the Hospital of St. Louis, made a very favorable report.\* They observe "that, compared with all other known remedies, even those which are considered the most rational and efficacious, the sulphurous fumigations are decidedly preferable in simplicity, brevity, efficacy and safety." They also report; "that it is important to make them as extensively known as possible, and advise their

\* 1813.

establishment in hospitals, ships of war, camps, prisons, &c. &c."

From my own experience I am induced to believe that this is not more than a just representation of the remedial power of sulphurous fumigations in itch. But as a private establishment for this purpose is necessarily expensive, if this were the only disease to which they could be applied, their usefulness in private practice would be comparatively limited.

There are other remedies even for this complaint less expensive, and to many persons, more convenient than the fumigations. The lotion for example, recommended by Alibert, consisting of the sulphuret of potash, &c. and a similar preparation employed by M. Dupuytren, in the *Hôtel Dieu*. These I have been in the habit of using; and when prepared with care may always be relied on as simple, efficacious and safe in every form of itch, and, like the sulphur fumigations, may be employed without soiling the linen, producing a disagreeable odour, or any other inconvenience which results from oily applications.

The views of Doctor Galès did not at first extend beyond this single disease, but as he proceeded in his experiments, applying the fumigations to those cases which were suspected to be other diseases of the skin complicated with psora, the valuable powers of the remedy became developed. This will be strikingly shewn by the following extract from a report made by a committee, consisting of Professors, Hallé, A. Dubois, Pinel and Dupuytren, names which all must consider of the highest authority, and who had devoted considerable personal attention to the subject.\* "Sulphurous fumigations, as practiced by M. Galès, are, in many cases, much more efficacious than

\* 1816.

those remedies which have been heretofore employed in similar affections. Our opinion of the advantage to be derived from the method of M. Galès is *founded on cases treated under our own eyes*; most of the patients having been before unsuccessfully treated by the usual methods. By means of it, hereditary tetters, and those which had existed from childhood and appeared to be so inherent in the economy as to lead us to despair of their ever being cured, and which had been unsuccessfully treated in various ways, have been perfectly removed. We have also seen diseases of the skin, complicated with the syphilitic virus, which could not be cured by sudorifics and mercury, exhibited under many forms, and at different periods, promptly removed by a slight ante syphilitic course, when the patients were previously submitted to the sulphurous fumigations. These fumigations appear to exert an exciting effect upon the lymphatic system, and have been employed by M. Galès to combat certain diseases depending upon a loss of tone in this system, such as scrofula, &c. M. Galès has also employed this remedy in certain cases of gout, rheumatism and palsy, and often with success. But from the experience of M. Galès, and our own observation, fumigations have not succeeded so constantly or completely in the cure of gout, as in affections of the skin. Those gouty persons who have used them in our presence have been benefited, and many have been perfectly cured, especially when it was atonic, and of long duration. Rheumatisms have been more readily cured by Dr. Galès, particularly chronic rheumatism. The success of fumigations has appeared to us to be more uniform in those cases of palsy which have succeeded apoplexy."

"In giving the result of our observations, it should be mentioned, that in some instances the fumigations have

been found inefficacious. But the almost constant success which has been obtained in affections of the skin, and the advantages which have been derived from them in the treatment of other diseases, advantages which further experience will probably extend, say much in favour of this method; and it should be remarked, that if their efficacy has not been universal, their safety has not been brought in question by a single accident."

(SIGNED.) HALLE,  
A. DUBOIS,  
PINEL,  
DUPUYTREN.

So important was this improvement considered, that the exclusive privilege of using the remedy in Paris, was granted to M. Galès, and a memoir on the subject published by him in 1816, was printed in the royal press and distributed over the empire by the order of the French government.\*

## CHAPTER II.

### *Dr. Galès' Cases of Sulphurous Fumigations.*

HAVING thus given a short account of the origin of this practice, I shall now lay before the reader a few of the numerous and interesting cases recorded in the memoir above alluded to, by M. Galès. It should be remembered that in these instances, the fumigations were applied to the whole surface of the body, excepting the face.

\* Vide, *Mémoire et Rapports sur les fumigations sulfureuses appliquées au traitement des affections cutanées, &c.* par J. C. Galès, M. D. &c. Par ordre du government. 1816,

*Hereditary, squamous, humid Tetter.*

Madame —, aged 31 years, of a lymphatic, nervous temperament, and of a constitution naturally delicate, whose mother had been afflicted with tetter, and who had lost a sister in consequence of a constitutional cahexy, had been afflicted from infancy with tetter.

The disease, after having passed successively, and at different periods, over various parts of the body, at last fixed itself behind the ears, and the head. It then spread down the back along the spine, covered the lower extremities, and finally extended to the whole surface of the body. Through its whole extent, except the ears, where it was crustose, and suppurating, the tetter presented large plates of a bright red colour, irregularly divided at their margins, from which there was poured out, in large quantity, a thick fluid. The itching was intolerable, and in certain parts deep ulcerations had taken place, producing surprising alterations of structure and the most shocking deformity. The patient suffered continual anguish, and had for a long time lost her sleep and appetite.

A little coffee with cream, which she took in the morning, was nearly all her food through the day. Extreme emaciation had consequently taken place, attended with melancholy, excited by her horror at the shocking disease, and her entire despair of getting relief. This lady had seven children, all of whom had marks of the tettery disease of the mother.

The long continued use of sulphurous fumigation triumphed over this malady, which had resisted, until then, all the resources of the medical art. From the hereditary herpetic diathesis, joined with a complete prostration of all the functions, the great extent and

long duration of the disease, and its peculiar malignancy at certain points, it had been abandoned as hopeless. The treatment with sulphurous fumigations commenced on the 10th of May, and terminated on the 1st of August. The progress of the cure was slow at first, but at last became rapid. The natural plumpness, freshness, and sprightliness of the patient returned as the disease disappeared, and several very disagreeable complaints, which were complicated with it, vanished as the cure proceeded. The treatment terminated on the 1st of August; several months afterwards the patient was found to have remained in perfect health.

*Tetter, shingley (circinees) on the back and lower extremities, crustose on the arm and nose.*

M. D——, aged 25 years, of a bilious-sanguine temperament, and of a good constitution, had several attacks of syphilis; which, owing partly to the carelessness of the patient, and partly to improper advice, was imperfectly cured. Some time afterwards, red blotches, attended with a prickling sensation, appeared on different parts of the body, which were in a short time covered with small pimples, enclosing a whitish fluid, which dried, leaving thin scales which soon fell off. But near these spots, others soon appeared, possessing a similar character. This eruption continued to be confined to the arms and lower part of the abdomen, and was accompanied with *formication*.\* A great number of means were employed to remove it, particularly antesyphilitic remedies, without effect. It at length began to extend itself, and spread over a great part of the

\* *Formication*, a sensation like that produced by ants creeping over a part.

body, the hands, abdomen and chest alone remaining free from it. In its progress, its form and nature became changed. The tetter, which existed at first upon the arms and nose, became crustose. The large, thick and greyish plates became detached, discovering red blotches, with small points, which discharged an ichorous fluid that continually renewed the crusts. Other blotches, more or less rounded, more compact, and more elevated at the edges than the centre, covered the rest of the body. An excessive itching had occurred where the eruption was crustose, the *formication* being confined to those places where the tetter existed originally.

Professor Dubois, to whom the patient applied for advice, seeing the total inefficacy of the means which had been already employed, recommended the sulphurous fumigations. They were accordingly applied with great regularity, being often repeated morning and evening, until the patient had taken two hundred, when the disease was completely conquered. A slight antesyphilitic treatment was administered after the use of the sulphur fumigations, which served to consolidate the cure. Contrary to what has been generally found to be the case, the tetter situated upon the face was the last cured. Fifteen months having passed without any relapse, the cure must be regarded as perfect.

*Phagedænic\* (rongeante) Tetter, situated on the nose and upper lip, cured by sulphurous fumigations alone.*

M. P——, aged fifty years, of a sanguine temperament, and of a good constitution, and who had led an active life, had about seventeen years before, a syphilitic taint, which was cured by about twenty-two bottles

\* *Phagedæna*, a corroding ulcer.

of the *rob de Laffeteur*, and a very severe regimen. M. P——, persuaded that he was perfectly cured, soon afterwards went to Nantes; after he had been about two months in this city, numerous pustules appeared on the perinæum and upper part of the thigh, accompanied with violent itching. These were treated with mercurial frictions, with fresh and sea baths, &c. and in two months were entirely removed. In 1807, the patient being in Italy, after having been exposed for a long time to the direct rays of the sun, was seized with a malignant fever, the crisis of which was manifested by an eruption of red pimples over the whole surface of the body, that remained during his convalescence. Soon after the desquamation of these pimples, there appeared on the loins and nape of the neck, a dry, crustose tetter, which spread to the right temple and nostril, where it assumed a humid, and crustose character. It was treated with whey, and the nitric acid, the last was carried to the extent of an ounce daily. The eruption on the loins and nape of the neck disappeared; but the tetter, which had appeared on the face, spread itself over the whole nose and into its cavities, over the lower eyelids and the upper lip. He was then advised to try the sulphurous water baths of Lusignano, and the *sirop de Cuisinier*. These were tried for two months without success; on the contrary, the ulcer assumed a phagedenic (eating) character; the whole of the skin was altered, being hard and swollen where it had not ulcerated. He had then recourse to the extract of Aconite, taking twenty-four grains daily, until he had taken five ounces in the course of two months, without any advantage.

M. P. then came to Paris, and submitted to the sulphurous fumigations towards the latter part of April,

1814. At the tenth application the patient experienced sensible relief; at the fiftieth the ulcers began to cicatrize; at the seventy-eighth, which was the last, the cure was complete. From that time his health has been perfect."

The patient afterwards gave a very intelligent and elaborate history of his case in the *Gazette de Santé*, which concludes in the following manner: "Before, during, and after the cure, Dr. Galès presented me to many of the most distinguished members of the medical faculty of Paris. All those who knew my deplorable state, readily recognized me in the portrait which Dr. Galès had caused to be taken. But I no longer resemble this frightful portrait; I now retain no other trace of this cruel malady, which I had combated without success for so many years, by all the usual means, but a slight redness of the right nostril without deformity. This malady yielded to nothing but sulphurous fumigations, and the sudorific syrup. I have every reason then to speak highly of these fumigations, and of the kind attentions of Dr. Galès, to whom I vow eternal gratitude. P."

*Note of the Editor of the Gazette.*

"I have now before me the portrait of M. P. before his treatment. He was entirely disfigured by a sort of horrible blue mask, which covered the whole countenance, but which has disappeared without leaving any deformity. This is one of the most remarkable cures I have ever seen."

*Ulcerated Tetter, with Scorbutic Diathesis.*

S. — aged twenty six years, of a bilioso-sanguine temperament, and of a robust constitution, exercising the

profession of a porter, had suffered for ten years from ulcers, which seemed to be a complication of scurvy and tetter in the left leg. He had applied in vain for relief to all the different hospitals of Paris.

When admitted to the Hospital of St. Louis, the 17th Sept. 1814, S. exhibited the following symptoms; face livid, gums red, soft and tumefied, loss of sleep and appetite, general lassitude, aversion to exercise, inclined to melancholy. The left leg was double the volume of the right, the skin was of a purple colour through its whole extent. In some parts it was hard and studded with small ulcerated pustules, from which there was a serous discharge, so acrid as to irritate the surrounding skin. There were three ulcers, the largest of which was situated over the inner ancle bone, from which a redish fœtid pus was constantly discharged. The surrounding skin was of a deep erysipelatous red colour. He was put upon a tonic regimen, with bitters, and the use of sulphurous fumigations. By the sixth application, the ulcer became clean and the pus healthy, and the serous discharge from the pustules was no longer corrosive; an insupportable itching now took place, which was relieved by emollient poultices. At the eighteenth application, the leg returned to its natural size, but still preserved its purple colour. At the twenty sixth fumigation, there was no ulcer except that of the ancle. The skin of the leg was at first wrinkled, but after having thrown off a considerable quantity of dry pellicles it recovered its natural appearance. In fifty two fumigations the patient was perfectly restored. The ulcers have not re-appeared although the man has for some time returned to his laborious profession.

It is worthy of being remarked, that from the moment there was a favourable change in the leg, there was an

evident improvement in the functions of digestion, and the mind of the patient.

### *Palsy of the Right Side.*

M. D. aged nineteen years, was attacked in the month of June 1814, with an intense headache, particularly on the back part. He took two emetics, and was bled twice, which relieved the pains in the head. But, soon after, the patient was seized with convulsions, which continued for eight days, and at last left him with a complete palsy of the right side. The motion of the tongue and the power of speech were lost, and the urine discharged involuntarily. A great number of external and internal remedies were employed without relief.

On the 21st of September the sulphurous fumigations were applied. After the third sitting, slight motions of the extremities could be executed, and those of the tongue were a little more free. After the fifteenth, the patient could use his limbs and speak, at the 20th he could walk and dress himself alone; after the 24th M. D. was perfectly cured, and has not since perceived any difficulty in moving.

### *General Atony, with Paralysis of the Left Arm.*

Madam de S. of a nervous temperament and a delicate constitution, was attacked with a bilious fever which was followed by a complete atony of all the organs of the body. The patient was reduced to a state of extreme debility and emaciation, the skin was of a livid paleness, the stomach incapable of digesting the food, the juice of a cutlet even producing indigestion; the left arm was paralytic; the sensibility of the limb remained, but the power of voluntary motion was entirely lost, falling like a dead mass when it was raised and left to itself.

M. Hallè was called in consultation, by M. Gastelier, the family physician of this lady. He advised the sulphur fumigations. The patient was conducted in her carriage and lifted into the apparatus. The first fumigations were of short duration, but followed by a decided improvement. The stomach recovered in a great degree its energy, and could digest light aliment, the muscular strength was increased, and the voluntary motions of the arm were in some measure restored. Encouraged by such prompt success, this lady was induced to persist in the use of the remedy. By the time they were carried to fourteen, her health was perfectly restored; all the organs had recovered their energy, and her natural flesh and freshness returned. She digested her food as well as before the disease, and the arm regained all its former strength.

This patient was seen by Messrs. Leroux and Chaussier.

*Dry Squamous Tetter spread over the whole body,  
Complicated with Jaundice.*

J. Berger, aged twenty five years, of a sanguine temperament and a good constitution, was attacked while a prisoner of war in England, with a crustose tetter upon the arms, thighs and legs, which, by a bad diet and unhealthy habitation, became dry and squamous. It at length spread over the whole surface of the body, in plates of different sizes, somewhat elevated above the level of the skin. These plates were of a bright red colour, and covered with a thin pellicle strongly adhering to them, like the skin of an onion. No discharge had taken place from their surface, though the patient was attacked every night with severe itching. With this herpetic affection there was joined a jaundice, ari-

sing from an obstruction of the liver, which was large and projected beyond the ribs. The functions of the stomach were also impaired.

Berger commenced the sulphurous fumigations on the 6th of July, 1814, with this treatment were joined laxative drinks. At the eighteenth fumigation, the colour of the tetter was less vivid, the itching less severe, the liver less prominent, and the appetite improved. At the thirty ninth application a great number of large scales were detached, the itching had ceased, the symptoms of jaundice disappeared, and the liver returned to its natural size. From this period to the 70th, the progress of the cure was slow, they were therefore suspended for eight days. They were then resumed, and proceeded rapidly towards a happy termination. After ninety applications the patient was perfectly restored.

This patient returned to the country, from whence he wrote a letter dated 11th of Dec. 1814, in which he confirmed the good state of his health.

### *Hemiplegia. (a Palsy of one side.)*

Madame Mauban, aged sixty-eight years. was attacked in October 1813, with a paralysis of the right side. The sulphurous fumigations were applied the same day. After the first, the motions of the fingers were partially restored; those of the lower extremity returned after the tenth fumigation. Madame Mauban, who was at first carried into the apparatus, could then get in herself.—After thirty-seven fumigations, all the motions of the paralytic side could be executed as in health. They were, however, carried to fifty, to ensure, still more perfectly, the cure, which was the more prompt, from the patient having received them twice a day. Since that period, her health has remained good.

*Universal Paralysis.*

Madame Royer, aged fifty-seven years, in the month of May, 1814, without any known cause, was suddenly struck with a universal palsy, which remained for three months unrelieved, notwithstanding all the means usually employed for this purpose.

The patient determined to have recourse to sulphurous fumigations, on the 6th of July, 1814. On the 22d of August, after having received twenty-seven applications, she could walk without any lameness; was even well enough to walk in the street, could use her hand in eating, thread her needle, and sew. In a short time, her appetite and sleep returned. Flattered by the great advantages, which she had obtained in this short time, she suspended the fumigations, but afterward used them. Forty were sufficient to obtain a radical cure. M. Leroux, Dean of the Faculty of Medicine, of Paris, and many other physicians, saw the patient before the use of the fumigations, and two or three times a week during the treatment. Professor Hallé has also seen her, and is satisfied of the cure being perfect.

*Universal Paralysis.*

One of the patients of the Hospital of St. Louis, about forty-five years of age, was attacked in June, 1814, with a typhus fever, then prevalent in the Hospital. The nervous symptoms in the case were of the most urgent character, and terminated in a universal palsy, for which the sulphur fumigations were tried. The patient took about forty fumigations; her health gradually improved, until it was perfectly re-established; she is now well, and is one of the laundresses of the Hospital.

*Paralysis of the Superior and Inferior Extremities.*

Dody, a servant, a Swiss by birth, who had been long an invalid—within the last two months was seized with a complete palsy of the inferior, and nearly entire of the superior extremities, when he commenced the sulphurous fumigations, October 12th, 1814.

This man had been subject through life to unusually violent head-aches; his sanguine temperament had been exasperated, by his debauched and intemperate habits; his complexion had become covered with pimples, and was habitually very red. His health had been long impaired by obstinate rheumatisms, which had seized upon the lower extremities. Vivid emotions, great inquietude, and profound chagrin, occasioned by the persecutions his master had undergone during the Revolution, had perhaps contributed to undermine his health.

Towards the middle of the year 1814, he first perceived a remarkable debility in the stomach and other abdominal organs, which gradually increased, without any manifest disease in any of these parts, and was accompanied with a sensation of coldness about the loins, pelvis, and lower extremities. The patient manifested great difficulty in walking, and at last the inferior extremities lost entirely the power of voluntary motion, though their sensibility still remained. At length the superior extremities became affected in the same manner. He could move his arms, but was unable to open his snuff-box, to hold a pen, or his knife and fork, or otherwise to assist himself.

Various remedies were had recourse to, such as mercury, spirit of mindererus, taken internally in large doses, volatile alkali, &c. &c., but without any material benefit.

In the commencement of October, three months after the first attack, while the palsy was still making daily progress, Doctor Tartra being called in consultation, proposed either a more active treatment, such as repeated blisters, sinapisms, moxas, &c., sustained by the employment of the most powerful tonics; or, to give up every medicine, and to rely on the sulphurous fumigations alone. The consulting physicians had often found, from experience in analogous cases, that the first method could not be depended on, for arresting the progress of the paralysis; and that such patients had remained completely incurable, or had at last sunk under the effects of the disease; on the other hand, they were informed of the salutary effects of the fumigations in several cases of paralysis, hemiplegia, extreme debility of the limbs, and the most obstinate and inveterate rheumatisms. They suspected, that *the rheumatisms, formerly felt by the patient, might have some connection with the paralysis*, and that the fumigations, *the frequent effect of which is copious transpiration, might be useful to the patient.*

In a word, a sensible improvement soon followed the employment of this agent; but it was not until the 23d day that the patient could place himself in the apparatus without assistance. At this time he recovered the use of his fingers, so as to be able to open his snuff box. He gradually grew better as the number of fumigations were increased, until they were carried to 71. The first day he took one fumigation of about three quarters of an hour; afterwards, two daily of about an hour and a quarter. At the thirtieth day, the patient, who was in other respects improving, had violent pains, which appeared to yield more slowly than the debility of the extremities.

During the whole course of the treatment, the patient was frequently seen by a great number of medical men, who were extremely anxious to witness the effects of the remedy in this severe and interesting case. Among others, Messrs. Leroux, Dean of the Faculty of Medicine of Paris; professors Hallé and Chaussier; Pasquier, surgeon of the invalides; Lucas, physician to her Royal Highness the Duchess D'Angouleme; Capuron, Professor of Obstetrix; Demangean, &c.

The patient employed no other remedy than the sulphur fumigations. He has returned to his usual business; since the treatment has ceased, his health has remained good and appears constantly to improve.

(SIGNED.)      TARTRA,  
                    L'HERMINIER,  
                    LUCAS,  
                    Attending Physicians.

*Gout, with nodosities.\**

C——, a goldsmith, aged 22 years, had been affected since the age of 15, with rheumatic pains. He served in the army during the campaigns of 1812–13 and 14, and was much exposed during the siege of Magdeburg. His habits were debauched and intemperate. On his return to Paris he gave himself up to a very licentious course of life; about a month after his return, he was seized with pains of the legs, especially of the ankle joint. These kept constantly increasing and extending to the other joints; he entered the clinical ward, after having been treated for a syphilitic affection in the same hospital, on the 4th of January, 1815, three months after the attack of the disease. He then exhibited the fol-

\* A node is a hard, bony excrescence.

lowing symptoms, viz. redness with considerable swelling and pain in all the joints of the fingers, hand, wrist, elbow, and right shoulder joint; nodes of the size of a pigeon's egg existed in the articulations of the hands and feet. The same symptoms were exhibited by the internal ancle bones, and the knees, especially the right. There was an increase of pain during the night, and whenever the patient attempted to move.

Until the 20th of January he employed ptisans, sudorifics and frictions with volatile linniment to the painful parts. The pains were at first a little soothed, but they soon returned with more intensity, and extended to the left thigh. On the 20th of January he began taking Van Swieten's liquor, and on the 31st the pains and swelling suddenly diminished, but returned in a few days, accompanied with a very intense pain in the back of the head. Accident at this time suspended the treatment, and at the beginning of March the swelling of the feet had decreased by warm-baths, &c. and the pains of the arms diminished; this however was but momentary, and the pains again became as severe as before.

The sulphurous fumigations were applied on the 27th of March, for the first time, when the patient remarked that he could move his fingers with more ease; the next added to the relief which he had before experienced. By the 31st of March the swelling of the joints had sensibly diminished; 3d of April the pains of the ancles increased a little, but diminished again the next day; the motion of the elbows, fingers, and feet became more and more easy, as the swelling of these parts diminished. On the 12th of April, after eighteen fumigations of an hour, the hand and fingers had returned to their natural state, and the patient could bend his fingers and walk about without any difficulty. On the 29th of April

he was discharged perfectly cured, after having received thirty-two fumigations. The nodes had entirely disappeared ”

I shall conclude my extracts of cases which occurred in the practice of doctor Gales, with one not to be found in this memoir, but originally published in the *Gazette de Santé*.

### *Dreadful syphilitic Tetter.*

Alex B —, aged 50 years, a sailor by profession, born of healthy parents, had a syphilitic affection in 1810, which was improperly treated, and never cured. In 1811, his face, shoulders, and some other parts of the body, became covered with a humid tetter, producing a thick, whitish discharge. It was treated without success during two years, by a Dutch physician. Discouraged by the inefficacy of the remedies employed, the utter uselessness of caustic applied to the arm, and a seton to the neck; the patient confined himself for some time to sudorific drinks, bathing, &c.

In the mean time, the eruption was making a most alarming progress; it already covered the whole surface of the head and face, so that the left eye was entirely lost, and the right seriously threatened. Such was the deplorable condition of this patient when he presented himself to me, on the 16th of September, 1817. Not doubting that an inveterate and badly treated syphilis was a principal cause, or at least complicated with the tettery eruption, I advised the sulphurous fumigations as preparatory to other remedies.

After the first fumigations, derangement of the stomach, weakness and general lassitude, and loss of appetite occurred, which were readily relieved by evacuations. The eruption which occupied the shoulders, back and loins,

that discovered itself the first were entirely removed by the twentieth fumigation. Those which occupied all the surface of the head, which had destroyed one eye, and alarmingly affected the other, and were spread over the arms, resisted for a longer time; nevertheless, after the fortieth fumigation, the right eye was no longer in danger, the skin became whiter, and returned to its natural state.

The treatment of this patient was continued for two months by doctor Picouline. The patient was seen by M. Leroux, Dean of the Faculty of Paris and Mess. Dupuytren, Bouillon-Lagrange, Demangeon, Tartra, &c. He was presented to them the 15th of November, just two months after the commencement of the treatment, in a state of perfect health, having the right eye sound, and the skin of the body and arm perfectly smooth and white, &c.

Thus in the space of two months, by the aid of seventy-five fumigations, and the depurative syrup, with the addition of the muriate of mercury in the proportion of sixteen grains to two pounds of the syrup; in all eight pounds of the syrup, and sixty-four of the muriate, was cured this dreadful syphilitic tetter, which for seventeen years had resisted every mode of treatment.

*Note by the Editor of the Gazette.*

[ "I have examined this man since his cure, and could compare his present condition with what it was two months since. M. Galès, before the treatment, had an exact picture taken, which cannot be viewed without horror. It is still very easy to trace the old likeness, by the prodigious and numerous scars with which the patient is covered. I acknowledge that I have never seen so extraordinary a cure; I am particularly induced

to think well of a remedy by the aid of which one obtains results, almost miraculous, precisely in those cases where all other means almost always fail."

The above cases, with the exception of the last, are selected from one hundred and twenty, a considerable proportion of which are nearly as remarkable. These are not the private reports of an individual, where the cases were only seen by himself, and might therefore be exaggerated. But they either occurred in public hospitals, under the direct supervision of some of the first medical men in the world, expressly appointed to ascertain the efficacy of the remedy, or were seen repeatedly by persons whose names are mentioned, and whose authority is universally known and acknowledged.

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### CHAPTER III.

#### *Observations and Cases of Sulphurous Fumigations, by Dr. De Carro.*

A REMEDY of such extraordinary power, the value of which had been so thoroughly tested, and was sustained by so many remarkable instances of its efficacy, particularly when introduced to the world under the sanction of such high authority, could not fail to attract attention. It in fact did excite an unusual degree of interest, especially throughout the continent of Europe, and was almost immediately introduced into all the principal cities, and large hospitals.

Doctor De Carro, of Vienna, a name well known, of whom Madame de Stael makes honourable mention among the scientific men of Germany, was one of the

first to turn his attention to the subject. This gentleman had particularly distinguished himself by his activity in introducing vaccination into the Austrian empire.\* He set up an establishment for fumigation in his own house, as early as 1817, and by his various exertions has perhaps done more than any other person, except Dr. Galès, in extending its usefulness. He made several valuable improvements in the apparatus, and has evidently examined the subject with great care and intelligence. He has given several public reports of the result of his practice, the last of which is illustrated by two hundred cases. The sulphurous springs of Baden, in the neighbourhood of Vienna, had prepared the inhabitants of that city to receive the remedy with confidence.

As it is my wish on the present occasion, to bring before the American reader, the most conclusive testimony in favour of this remedy, and such as the most fastidious must be satisfied with, I will now exhibit the most important results obtained by Doctor De Carro on this subject, together with a few, out of the large number of interesting cases related by him. The following extracts are taken from a Memoir, published by him, at Vienna, in 1819, two years after having introduced the

\* In a late number of the London Quarterly Journal of Foreign Medicine and Surgery, (Oct. 1821) there is a notice of a work on Anatomy and Medicine lately printed and published in Turkey, the first book on these subjects ever produced by the press of Constantinople. The author's name is Chuaui-Zadeh Mehmed-Ata-Gullah. The history of vaccination professes to be taken from the work of Dr. Caran, a German Physician, but M. Bianchi, from whose account of the work this notice is taken, supposes that Dr. De Carro is here meant, as the Turks almost always mutilate European names. M. Bianchi remarks, that Dr. De Carro first introduced vaccination into the East, the first lymph being sent by him from Vienna to Constantinople.

remedy into that city. It contains several short public notices, published by him at different periods, in the course of his practice.

In the first of these, dated 15th of August, 1817, he observes, "although I began the practice on the 24th of July, and the cases with which I have commenced, are of the most serious and obstinate kind, having resisted all the remedies heretofore employed, the results have been very satisfactory. It is the unanimous opinion of all the medical men who have seen it in operation, that this mode of exhibiting sulphur, is, by far, more active than any other known method; and that so powerful a sudorific must produce the happiest effects in diseases of the skin, joints, &c." In his third communication, he remarks, "I think it proper to satisfy the desire, testified by the public, to become acquainted with the results of my first attempt, after having practised fumigation for three months. With respect to herpetic affections, (certain diseases of the skin,) I have cured several of the most obstinate, and which, for several years, had greatly distressed the patients, without any internal remedy. Among other instances of its efficacy, a skilful oculist of this city, Dr. Frederick, on finding the cause of a disease of the eye in one of his patients, was an itch, suddenly repelled—and that of another, a tetery eruption, advised the fumigations; which, by removing the causes, also destroyed the effects; their vision was much improved."

"But, however efficacious the fumigations may be in different diseases of the skin, they are still more powerful in chronic rheumatisms, various pains of the joints, lumbago, sciatica, and other deep seated diseases of this kind."

In his fourth communication, dated March, 1818, he remarks—"Though winter has diminished my occupations, I have found that, with some precautions, the remedy may be exhibited at all seasons of the year, especially when the diseases are too urgent, to admit of being delayed until spring or summer. I now confirm all that I have said before, of the efficacy of fumigations in different gouty affections, lumbago, sciatica, and other chronic diseases of this class, in itch, and herpetic eruptions. I repeat that, in diseases, susceptible of cure or relief, the proportion of cases, where it is ineffectual is small, in comparison with those where it succeeds. Although this remedy is not infallible, I do not hesitate to affirm, after eight months of experience, that the art of medicine has never possessed a remedy more efficacious or active. These fortunate results have attracted many patients, who, after having made use of all other known remedies, were desirous of taking this last chance of relief."

"My experience does not permit me, at present, to determine, with precision, the kind of inveterate syphilitic diseases, appearing under the form of gout, and cutaneous eruptions, in which fumigations should be applied alone, or combined with other remedies; but my observations authorise me to believe, that they will be found useful in diseases arising from the abuse of mercury, and that they may be used with advantage in certain cases, in preparing for this remedy, and where it alone had been employed without success."

"Those discolourations of the skin called liver-spots, have readily been removed. Two patients, whose back and breast had been covered with them for five years, have been entirely cured—the one in ten, and the other in five sittings. One of the cases was accompanied with

pains in the head, and a sensation of pressure and prickling, so insupportable, that the patient had lost the power of concentrating his attention upon any object. These pains, which began with the cutaneous disease, have disappeared with it, and enabled the patient to return to his usual occupation."

"I have treated persons of all ages from five to seventy. A small girl of six years, otherwise in good health, and a boy of five, very delicate, both having diseases of the skin which had resisted all the ordinary remedies, have been cured by the sulphurous vapours, without any inconvenience; the first took twenty three, the other fourteen. "One of my most remarkable cures was performed upon an old man of seventy, whose arms, from the elbow to the wrist, and whose legs, from the knees to the ancles, had been covered for a year and an half with a frightful herpetic eruption. He was entirely cured in sixteen days, by fourteen fumigations." "The result of fumigation has surpassed my expectations; I have already cured the most severe and inveterate gouty and cutaneous affections without any disagreeable accident."\*

To support his remarks Dr. De Carro has recorded two hundred cases, with their results, in the regular series as they occurred, and there is the strongest internal evidence that they are related with candor. Though as he acknowledges, they have not been always successful, yet they amply justify all that he has asserted on the subject. My limits will prevent my extracting but a few of them.

\* Vide *Observations Pratiques sur les Fumigations Sulfureuses*, par Jean De Carro, M. D. &c. &c.

*Severe Chronic Rheumatism.*

"A man of about forty years of age, of a strong constitution, in other respects in perfect health, in the habit of exercising a good deal on horseback and on foot, had suffered for twelve years frequent attacks of violent pain from the upper part of the thigh extending to the toes, sometimes on the right and sometimes on the left side; during the greater part of the last six years it had been desperate and almost insupportable. All known remedies, internal and external, even a very rigorous mercurial course had been employed, without success, opium alone soothed his pain, but thirty drops occasioned vertigo; to him a humid was more favorable than a dry state of the atmosphere."

After four fumigations, which caused him to sweat abundantly, the pain became dull, and at last disappeared; he received ten applications from the 29th of Nov. to the 8th of Dec. This patient, who I have often seen during the eight months which have since elapsed, has informed me that he has seldom felt any pains since, and those slight and of short duration.

*Herpetic Eruption.*

A man about fifty years of age, of a florid and bloated complexion, affected unusually by the heat, although born in a warm climate, and in whom the blood was very apt to rush to the head, had for three months laboured under an herpetic eruption, forming large crusts upon the calves of the legs, and the rest of the body covered with small and redish crusts, accompanied with excessive itching. In consequence of his sensibility to heat, the temperature of the box was kept low. He perspired

but little during the first fumigation, but more during those which succeeded. The fumigations from the third to the sixteenth of Dec. entirely re-established his health. I saw him in July perfectly well.

### *Rheumatic Affection of the Head.*

A surgeon, thirty two years of age, of a good constitution, had suffered for five years, pain, with a sensation of pressure, and prickling in the scalp, arising from a sudden check of the perspiration, from a cold bath. During the same period, the skin of the body was covered with liver coloured spots, which caused an insupportable itching. These pains of the head had incapacitated him from doing any thing that required attention, he was therefore compelled to abandon his profession, and even botany, his favourite study. Five fumigations, taken from the fourth to the eighth of Dec., dissipated the pains, removed the uneasiness in the scalp, and enabled him to return to his usual occupations. A month after this treatment the cuticle was renewed over the whole body. I saw the patient eight months afterwards; he still enjoyed sound health of mind and body.

### *Severe Chronic Rheumatism.*

A man, aged forty, had suffered, during the last eight years of a violent pain, which began at the lower part of the spine, and upper part of the thigh, from which it extended to the toes. The paroxysm, in general, began in the month of October, and continued through the winter. It came on, in consequence of exerting himself in lifting a person who was sick, after which there appeared, over the lower part of the back, a swelling, which was removed by moxa. An interval of five

years, without pain, now occurred, but it commenced again during the winters of 1815—16. The baths of Baden were always beneficial to him. His general health was very good, and he walked very well during the intervals between the paroxysms, but when they came on, the body was drawn down to the left side.— On the 9th of November, it was determined to apply the sulphurous fumigations. He was taken from his bed, being scarcely able to be carried to my house, and bent like the letter Z. After three sittings, the pains became less frequent, and much more tolerable; he could walk erect, the seat of the disease being no longer confined to one spot. After fifteen fumigations, in seventeen days, he was perfectly cured of his distressing complaint, in the midst of winter, which is the most unfavourable season for the remedy. I saw him on the 24th of July, following; he had not suffered the slightest return of his complaint, but walked with great agility.

*Chronic Rheumatism, complicated with Gout.*

A man, aged fifty-four years, of a good constitution, had been habitually affected, for five years, with rheumatic pains, shifting from the head to the breast, and all the joints, and who had gout alternately in each foot, received three applications of the fumigations, from the 15th to the 17th of April—the first of which produced copious perspiration. He was delivered, as if by magic, from his pains, and the flexibility of his limbs restored.

*Dry Tetters.*

A man, forty-three years of age, an inhabitant of one of the ports of the Adriatic, had been afflicted for ten years with a very extensive tetters, surrounding the neck

and shoulders. The tetter was dry, and often covered with red points, with suppurating tumours, to which the linen adhered. It was attended with excessive itching. The general health was good, except a slight chronic ophthalmia, attributed to the sea air. He recollected having been informed by his mother, that she had suffered during her youth from an herpetic eruption. He had tried a few remedies, among others, a solution of muriatic acid, rubbed upon the part, without success.

After the first fumigation, taken on the 22d of June, the itching diminished, and, as the patient was therefore prevented from scratching, the linen no longer adhered to the back. After the seventh application, the improvement was truly astonishing, the itching having almost entirely ceased. An eruption, arising from the fumigations, appeared upon the right arm, so as to interrupt the treatment; but fourteen fumigations in ten days completed the cure.

### *Severe Chronic Rheumatism.*

A man, aged forty-nine, of a good constitution, had, six years before, a bilious fever, which continued during three weeks, and then changed into a tertian ague, which bark and some other remedies failed to remove. The solution of arsenic was then employed, which removed the intermittent, but was followed by cramps and uneasiness over the whole body. From this time, he was afflicted with vertigo, faintness, and insupportable pains in the head, which were particularly violent during three weeks, and have continued since, though somewhat moderated. He has endeavoured to remove these pains, which produced a paralysis of the right arm, by various preparations of antimony, narcotics, and natural, and artificial baths, with little benefit.

During the third year of his malady, two practitioners advised him to undergo a rigorous course of mercurial frictions, which gave some relief for a short time; but soon afterwards, ulcers appeared upon the forehead, in which the bone seemed to be implicated. Whether the disease arose from a gouty taint, an abuse of mercury, or the arsenic, or all these causes united, I shall not now pretend to decide; but seeing all other remedies useless, I advised the sulphur fumigations. The pains and stiffness of the arms and shoulders were such, that he could not raise the arm, or even separate it from the body.

He began the fumigations on the second of July. He found relief at the first sitting, both in the box and after he came out; the improvement continued manifest, but gradual. At the end of fifteen days, he was able to return to his business, which was that of an artist, could hold his pencil, raise his arms sufficiently to put on his night-cap, and take off his hat in saluting his friends. In a word, the progress of the cure was as rapid as surprising. Thinking he might be weakened by the fumigations, I advised him to have recourse to the remedy every other day, but on the 27th of July, after having taken seventeen fumigations in twenty one days, a new tumour of the forehead, which required an operation, compelled him to suspend the treatment. His surgeon informed me on the 26th of August, that this accident had no influence upon his general health; that he remained free from pain, and that the strength and flexibility of his arms continued to increase.\*

\* "Two physicians of Hungary, Doctor Szaly de Steinam Anger, and Doctor Bl. ss, attribute to the sulphur fumigations a peculiar efficacy in diseases produced by arsenic and lead. The first of these gentlemen has related to me a very remarkable cure of palsy, occasioned by lead."

Dr. De Carro was not satisfied with adopting this remedy in his own practice, but, after having proved incontestibly its great power, he succeeded in propagating it throughout the Austrian Empire, and even to Odessa, on the Black Sea. In the latter part of his work, there are several remarkably interesting communications on the subject, from various sources, from which I shall make a few extracts.

"A fumigatory apparatus was established at Brunn, towards the end of the year 1817. Twenty-seven patients, suffering from obstinate rheumatisms, different diseases of the lymphatic and glandular systems, and affections of the skin have been treated and generally cured, when the effect of the remedy has been seconded by prudence. Some of the patients who were lifted into the apparatus, and others who were exhausted by their sufferings, dragging themselves along with difficulty, have returned to their business perfectly cured. These cures have been effected at an unfavorable season, in ten, eight, six, and fewer sittings—two very obstinate cases required twenty-four."

The following is an extract from a communication, made by a company of physicians of Presburg, whose apparatus had then been in operation in that city, during nine months, beginning on the 17th of September, 1817. "An experience of nine months is not sufficient to enable us to form a definitive opinion, of this method; it is enough, however, to confirm the truth of the assertions of Dr. Galès." "Though winter appears unfavorable to fumigations, yet suitable precautions, have enabled us to succeed in very serious and obstinate diseases. As in Vienna, we found the fumigations efficacious in gouty affections, lumbago, sciatica, and other chronic rheumatisms, tetter, itch, &c.; and we can say with Dr. De Carro, 'that in

diseases susceptible of cure or relief, the proportion of cases is small where we fail, in comparison with those in which we succeed.' Although fumigation is not infallible, we also agree with him in saying, 'the art of medicine never possessed a remedy more active nor more efficacious, and that this treatment, which requires in some instances great perseverance, at others, astonishes us by the promptitude of its effects.'

"A boy, of twelve years of age, was afflicted with a humid and ulcerating tetter, over the whole body, and had been deprived of public instruction, in consequence of the odour which exhaled from it. A number of physicians had been lavish in their attentions, and had exhausted upon him all the resources of the art. The ulcers of the ears had extended over the whole forehead, and formed crusts, which, bursting open here and there, discharged a most foetid substance. The eyes and cheeks of this unfortunate child, which tormented him by an insupportable itching, presented a most hideous appearance.

"He commenced the fumigations in the month of October, 1817, and continued the treatment through the month of November, after which he returned to school. The cure was complete, and though spring generally favours the return of such eruptions, not the least vestige of the disease is now (May) to be seen.

"Obstinate tetter, incurable by all other treatment, have been surprisingly mitigated or cured, by combining fumigations with those remedies, which had before been used without success. Several syphilitic complaints have yielded in a surprising manner, to the fumigations; but we require a much greater number of facts to form a definite judgment on this point."

*Extract of a Letter, from Dr. Grantzow, of Sarvaar, in Hungary, to Dr. De Carro.*

JULY 30th, 1818.

“My first patient was a priest, twenty-one years of age, who came here from a great distance, to try the fumigations, which his physicians had advised as a last resort. This patient had about his neck, a scrofulous tumour, of the size of ten ordinary fists, (*dix poings d’homme.*) The respiration was so much impeded, that he could not walk fifty paces without stopping to rest. Three fumigations diminished the volume of the tumour two thirds, and relieved the asthma. After fifteen sittings, the tumour had nearly disappeared. But his affairs not permitting him to remain any longer, and my want of experience in this new remedy not enabling me to fix the period which would be required for his entire restoration, he left me, determined to return and finish the cure the succeeding September.”

“But the following, if possible, is still more remarkable, and has given me the highest opinion of fumigations. A man, or rather a skeleton, aged thirty, had been sick for nine years, and had been treated by many celebrated physicians, especially during the last three years. He was scarcely able to walk a few steps, and had, in five or six days, only one small stool, attended with a purulent discharge; he had no appetite, and could not sleep without taking opium; he suffered excessive pain in the abdomen, in the limbs, and especially in certain tumours of the size of an egg, situated on the left shoulder and knee joint of the same side. This man, I say, to my great astonishment, was relieved of his pains after four fumigations. The three first applications seemed to make him worse, and

discouraged him. Afterwards, he began to have every morning a stool—the purulent discharge ceased—his pains disappeared, and at the end of twelve fumigations, he left me in good health. After having passed so many years of misery, his cure appears a miracle, and has excited great sensation in this country.’

I shall here conclude my extracts from foreign works. They may, at first sight, appear to some unnecessarily copious and prolix. But it should be remembered, that the object of this communication is to bring forward such a mass of testimony, as shall not only satisfy the members of the medical profession of the utility of this remedy, but diffuse a knowledge of, and confidence in it generally through the public. For this purpose, it was necessary to collect the most direct and striking facts, derived from the highest authorities. These facts are only to be found in a few books, of which there are a small number of copies in the country, and are written in a foreign language, therefore accessible to but few. When to these considerations is added the interesting nature of the facts themselves, I trust no further apology will be considered necessary.

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## CHAPTER IV.

### *Mode of Applying Sulphur Fumigations.*

I WILL now make a few remarks on the mode of applying this remedy and the sensible effects produced by it. The apparatus is large and requires one room to be devoted to it. I have appropriated a room in my own house, in North Charles street, and fitted it up with every necessary convenience, more particularly for the

accommodation of ladies, with a female attendant, and another separate establishment exclusively for this object. The apparatus consists of a furnace, box, and tubes for conveying off the gas, &c. All the equipment required by the patient is a few towels, and a flannel gown, and, if a female, a servant or friend. After the person has been introduced into the box, and it is closed, the patient sitting perfectly at his ease, the gas is introduced. The fumes are applied directly to the whole surface of the skin, the face excepted, which is carefully secured from their contact. The temperature of the apparatus can be readily regulated, this is indicated by a thermometer, placed with the bulb in the box and the scale on the outside. It is found by experience that the most desirable temperature is about  $100^{\circ}$ . The apparatus is so constructed that, when properly adjusted, none of the fumes can escape. This is a point which requires to be carefully guarded against, for whenever the gas escapes into the room it is apt to induce head-ache and vertigo both in the patient and attendants. In some instances very serious consequences have arisen from this cause. Dr. Horn of Berlin having had an apparatus so constructed as to allow the fumes to escape, found that they caused head-ache, faintness, and spitting of blood, &c.

There is scarcely any other sensation produced than that of an agreeable warmth. In some instances, profuse perspiration is induced, I have seen it so copious that it has run in a stream from the box. In general however, this is not the case. In some instances, after two or three applications, an excitation is felt over the whole skin, but by no means amounting to pain. Whenever the patient has suffered from rheumatism or rigidity of the joints, they almost universally remark while in the

box, that the pain is diminished and the flexibility of the joint increased. The pulse is generally rather increased in frequency and force, and a bright red colour imparted to the skin.

I did not get my apparatus into operation until quite late in the autumn; I was at first extremely apprehensive that the exposure of the patient in going into the open air, after having remained for so long a time in a high temperature, might be attended with disagreeable consequences. I had, however, several patients who were receiving the fumes during the coldest weather of the past winter, but neither of them suffered the slightest inconvenience from this sudden change of temperature. On the contrary, it was remarked by all that they had seldom known themselves so free from colds. One of them, an elderly lady, repeatedly observed, that she had never before been so insensible to the cold; that while the younger branches of her family were complaining of the severity of the weather, she scarcely felt any inclination to approach the fire. The time generally prescribed is half an hour; I have myself however considerably exceeded that period. My own experience confirms the observation of Dr. De Carro that the patient is for the most part so comfortable during the application, that he is seldom solicitous to abridge the time.

The remedy was first employed in this country in New Orleans. I have never seen any thing published on the subject from that quarter; but have learnt through the medium of Dr. Emerson, of Philadelphia, from Dr. Randolph, who holds the rank of Post Surgeon on that station, and who has had ample opportunities of witnessing the practice, "that fumigations of sulphur have been used extensively in that city for more than two

years past," and "that they have acquired much reputation in the diseases of the skin. He has witnessed their success in several forms of scabies, herpes, and ecthyma, in cases where the usual local and constitutional methods have entirely failed. Very great success has also resulted from the use of these fumigations in chronic rheumatism and partial paralysis, which is often a consequence of that disease." "As a remedy in the above diseases, the fumigations are much esteemed by the inhabitants, and it is worthy of remark, that the odium which has resulted from their indiscriminate use, has not impaired the confidence of the public in their particular merit."

The remedy has since been introduced into Philadelphia, Baltimore, Lexington, Boston, and I have been informed that Dr. Hosack is about establishing an apparatus in New York.

Doctor Emerson, of Philadelphia, who has been particularly active in attracting the attention of the profession to this remedy, and remarkably successful in applying it, has had the politeness to transmit to me the following cases. I shall therefore conclude with these, together with a few that have occurred in my own practice, which I think will shew that the remedy is not likely to prove less efficacious in this country than it has been found in Europe.

#### *Roseolus Affection of the Face.*

A lady of a sanguine temperament had been several months afflicted with a singularly unpleasant and obstinate roseolus affection of the face and neck. On ordinary occasions, very little external appearance of disease was perceptible, but upon the slightest excitement, such as mental agitation, exercise or warmth, however produced, a high degree of flushing ensued, attended with

an intolerable sense of burning and itching. In short, the unpleasant condition of this lady cannot easily be imagined.

In the month of October, 1821, she subjected herself to four general fumigations, taken in as many days. The immediate effect of the first was apparently to aggravate her complaint, which, from the common effect of heat, was to be expected. The third application seemed to check the disorder completely. To test the efficacy of the remedy, she now exposed herself for several hours to the heat of a warm fire, when no inconvenience resulted. She received a fourth fumigation, and has ever since remained free from the disease. What is most worthy of remark in this case is, the great and sudden influence exerted upon the parts not subjected to the immediate operation of the sulphurous gas.

### *Prurigo Formicans.*

Mr. B.—, aged about twenty seven years, of a nervous temperament, besides being a prey to dyspepsia, was afflicted with *prurigo formicans*. The itching was particularly distressing at night, and generally kept him awake two or three hours after going to bed. A sense of crawling, which he compared to a bunch of hairs drawn over the skin, rendered the affection still more intolerable. In some places, small patches of a scaly eruption were observable. In October last he received fifteen fumigations, the excitement from which, at first aggravated the itching, and increased the number of eruptive patches on his body and extremities. When he discontinued the practice his dyspeptic symptoms were certainly considerably ameliorated, and some rheumatic pains about his shoulders were entirely re-

moved. But these advantages seemed to be the principal he was to receive, as his cutaneous disease, which was the most formidable complaint, did not appear to be subdued. The result was, however, more favourable than could have been reasonably anticipated, for the prurigo subsided along with the irritation produced by the gas in a few days, and now, after the lapse of several months, he remains perfectly free from that disorder.

### *Tetter.*

Mr. G.—, a gentleman of a very robust constitution, had upon his hands and fingers, a vesicular eruption, commonly called *tetter*, which was of several years standing, and had resisted all the numerous and active remedies applied for its removal. At length from a local it threatened to become a general affection, making its appearance upon the ancles. The itching and other characteristic symptoms, were as intolerable as usually attend aggravated cases of this disease. A few local and six general fumigations annihilated this disorder completely. The itching ceased, the vesicular eruption disappeared, and the rough skin on the fingers and hand peeled off, leaving a smooth and healthy surface.

### *Impetigo Figurata.*

A middle aged lady had been for about four years subject to a species of moist *tetter*, *impetigo figurata*, situated on both hands, over the metacarpal bones of the thumb and index finger. The disease was characterized by regularly circumscribed patches, consisting of yellowish pointed pustules, clustered together upon a slightly inflamed surface. It made its first appearance upon the left hand, soon after the cuticle had been re-

moved, and renewed in consequence of a scald. Sometimes it would disappear, but the irritation of soap, however mild, always brought it out again. Cold weather always aggravated the disorder.

Objecting to general fumigations, if they could be dispensed with, her hands alone were subjected to the action of the sulphurous gas. An amendment was perceptible from the first application, and continued gradually till the eighth, when no trace of the disease was left. The applications were repeated daily.

### *Acne Punctata.*

Miss —, aged about nineteen years, was afflicted with that variety of acne, designated in Willan's Classification by the name of acne punctata, characterized by a tubercular eruption upon the face, particularly on the forehead and chin. The very numerous black points, peculiar to the disorder, disfigured her countenance considerably. As usual in this disease, they could be easily extracted with the nails or forceps, and when thus drawn out, resembled small white worms. The cure of this disorder is no trifling desideratum with the fair sex, for though little painful, and by no means dangerous, it is exceedingly obstinate and disagreeable. Having exhausted the usual remedies applied for the cure of this affection, without deriving the smallest benefit, Miss — determined to resort to the gas of sulphur.— She received about a dozen general fumigations, and at the same time had the vapour occasionally applied to her face in a partial manner, through a paper tube. This treatment was completely successful, and now, after a lapse of many months, her skin remains perfectly smooth and free from disease.

J. P. Spooner - 1823

*Papular Eruption over the whole Body.*

A gentleman of this city, aged about twenty-eight years, of a slender habit, and strongly marked melancholic temperament, became affected in September last with a *papular* disease, characterized by irregularly circumscribed patches of papulæ, which gradually spread over every part of his body and extremities, except the face, palms of the hands and soles of the feet. When the primary inflammation and irritation subsided, the diseased spots assumed a brownish cast, or copper colour, and remaining permanent, exhibited a scurfy appearance.—From this last symptom, as well as from the inveterate character of the disease, it is highly probable, that it would have run into psoriasis. The copper colour of the spots, and general aspect of the case, certainly created a strong suspicion of a syphilitic origin. But the absence of the usual concomitants, together with other circumstances of the most unequivocal nature, were sufficient to clear away every doubt.

Under the care of a very distinguished physician, this gentleman took, besides other things, fourteen grains of the oxymurias hydrargyri in the course of a few weeks, which, instead of affording relief, evidently aggravated the complaint. When I first saw him, the colour and distribution of the spots bore a very strong resemblance to those on the leopard.

Commencing with the sulphurous fumigations about the first of January, he took, with some irregularity, thirty general applications, the good effects of which were very obvious from the first, though it must be confessed, that the progress of the disease towards a cure was very slow. Nor was it until the gaseous applications had produced a high degree of cutaneous excitement, that

this formidable affection gave way.\* By the twelfth fumigation, scarcely any of the furfuraceous appearance was visible, but the spots still retained their situation, colour and size. When this gentleman took the last fumigation, his disorder was completely subdued; but in some places faint stains were left, which designated the former situation of spots.

### *Herpetic Eruption.*

Mr. S——, aged about 50 years, has been subject to a herpetic disorder, of which the following is a brief history. In the summer of 1820, he observed an inflamed spot or patch, of the size of a crown piece, upon the anterior part of his right leg. During its continuance, which was only about two weeks, the itching and tingling proved very troublesome. There was no evident constitutional derangement. In the month of October ensuing, the disorder made its appearance again in its former seat. It was characterized by a sensation of heat and itching, preceding and accompanying a vesicular eruption. The lymph discharged from the vesicles was clear and colourless, and concreted into yellowish incrustations. The disorder nearly disappeared, under the influence of warm weather, but returned again in autumn, affecting as before, one leg for about six weeks, when, after considerable swelling and inflam-

\* After the body had become accustomed to the stimulus of the gas, produced from the flowers of sulphur, I substituted in their place the roll brimstone, coarsely levigated. The advantages derived from this change, was owing to a slowness of combustion and the constant production of a fresh supply of gas. When the flowers are employed a larger portion of the sulphur is driven off in substance, but when the other form is employed, a greater quantity of acid gas is generated, which, of course, acts as a stronger stimulus.

mation, it suddenly attacked both legs, thighs, and arms, and was accompanied with an intolerable pruriginous affection. The first fumigations were applied in December, and the practice was continued at irregular periods through January, with the most decisive good effects. Rather more than thirty applications were found necessary to subdue this obstinate case. The practice not only removed the cutaneous disorder, but evidently improved the general health of the patient.

### *Pityriasis.*

A gentleman had been long subject to an affection resembling in many respects that genus of squamous disorders called pityriasis. It affected his head, loosening the hair, and producing a constant succession of fine branny scales. Several red spots were on his forehead, nose, neck, and back, but by far the largest had its seat upon the sternum. This was about the size of the palm of the hand, and covered with a thick yellowish incrustation. The other spots were also covered with a dry concretion, which fell off frequently, and was soon succeeded by a fresh crop. The mouth, tongue, and throat were seldom free from superficial ulcers, and rheumatic pains in the shoulders also proved unpleasant concomitants. As he had undergone a long mercurial course, there were very strong grounds for attributing its origin to that medicine. The compound decoction of sarsaparilla, with antimonials &c. seemed to produce no good effects; and he at length determined to resort to the sulphurous vapour bath. He took about twenty general fumigations in about as many days. The improvement in his disease was obvious from the first, and what is perhaps deserving particular attention, the

amendment in the head, which was not subjected to the fumes, kept pace with that observable in the upper parts of the body. Soon after taking the last, the cutaneous disease disappeared, and with it the pains subsided; but the ulcers in the mouth still remained.

Being in feeble health, the severity of the weather prevented him from following up the treatment with as much fidelity as was desirable. From what I have observed in similar cases, I think it highly probable, that a very favourable constitutional change might have been expected from longer persisting in the practice.

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## CHAPTER V.

### *Concluding remarks and cases of Sulphurous Fumigation.*

THOUGH it may seem superfluous to multiply cases illustrative of the effects of this remedy, or to increase the ample testimony which has already been presented to the reader in favour of the remarkable activity of sulphurous fumigations; yet I cannot close this paper without detailing a few cases which have fallen under my own observation, and which appear to me to be worthy of being recorded. Indeed, when I began, it was my intention to have confined myself exclusively to giving some account of the origin and effects of this agent, with those cases which have occurred to Doctor Emerson, in Philadelphia, and myself, in Baltimore, which were of themselves sufficiently numerous. But as I proceeded, I was induced to alter my plan, both on account of the interesting nature of the cases cited

above, and from the belief that the bare statement of facts derived from numerous and respectable authorities, would be more conclusive and satisfactory than mere speculations, or any number of cases depending entirely upon two individuals.

The affections in which this remedy has succeeded, are undoubtedly the most obstinate and uncontrollable in the catalogue of diseases. Paralytics, after a few trifling efforts, have been heretofore, for the most part, abandoned to their fate. There is scarcely an article in the *Materia Medica* which has not at some period been considered a specific in rheumatism, yet the fact that no one of them at present can be said to have a decided pre eminence in public estimation, is sufficient to show how little reliance can be placed on any, in this painful malady. There are few physicians who have seen much practice, who have not felt the total inadequacy of our present means of arresting the chronic affections of the skin. Willan studied more carefully and successfully this class of diseases than any other English physician, and his splendid work on cutaneous diseases is confessedly the best; his descriptions are accurate, and his delineations admirably faithful; but, when he speaks of the cure, he does little more than recite the numerous remedies, and as far as his own experience went, declare the total impotence of each.

My experience has been far from extensive; but I think I have seen enough of sulphurous fumigation to form a tolerably correct estimate of its power. No one who is acquainted with the history of medicine, or who knows any thing of the effects of agents when applied to the human body, can suppose that it will succeed in every case, even of those diseases to which it is more

particularly adapted. This indeed is not pretended, even by those who speak most warmly in its favour; but so far as my experience goes, it is unequivocally the most powerful remedy, particularly in diseases of the skin and rheumatic affections that I have ever witnessed. It certainly requires that sort of tact in its management which can only be derived from experience, to produce its specific effects. I confess that I met at first with embarrassment and even defeat in cases which I can now trace to this cause; and in which I am satisfied I should now succeed. But if the apparatus be well got up and properly managed, the application is perfectly safe and far from disagreeable, and does not leave any unpleasant odour. There is nothing more necessary to the success of the practice than regularity and perseverance on the part of the patient. This is especially the case in rheumatism and cutaneous diseases, which are remarkable for their tendency to relapse. However rapid the amendment may be, it is never safe to neglect the remedy until it is entirely subdued. In one instance, I was particularly mortified at finding that a tettery eruption upon the leg, which had improved with astonishing rapidity, and in which there was every probability of a cure being effected in two or three additional applications, completely relapse from this sort of neglect, though the patient had been particularly cautioned on this point. This I have found one of the greatest practical obstacles to the success of the remedy. I would therefore recommend those persons who find it necessary to go through a course of fumigations, not to commence without a determination of following them up with punctuality and perseverance.

*Rheumatic Affection of all the Joints.*

Mr. —, aged about twenty-five, had suffered extremely from rheumatism. His first attack was in 1809, being then about thirteen years of age. He had been actively engaged in walking of a warm morning for several hours, by which he was much heated; immediately afterwards he rode about twenty miles in a gig, and was overtaken on the road by a sudden change of weather, attended with a shower. During the latter part of his ride, he had observed an uncommon sensation in the great toe of his right foot. Finding himself quite lame on getting out of the carriage, he attempted to remove it by exercise, which rather aggravated the pain. He was, in consequence, confined for about five weeks; the feet and ancles were the parts chiefly affected; it was considered a complication of gout and rheumatism. In the winter of 1811, without any apparent cause, he was again attacked with all his former symptoms. After several weeks of confinement and great suffering he became better, and was advised to ride. Immediately after returning from his first ride, he had a relapse, which threw him into a much worse condition than before, so that serious apprehensions were entertained that he would not recover. The disease now extended itself over the whole body, and rendered him incapable of using his limbs for four months. Though he was under the care of the most respectable medical gentlemen in Baltimore, no essential relief was obtained, but with the returning warmth of the season.

In the following winter, December, 1812, he was again suddenly attacked with a severe pain and cramp in the foot, commencing in the ball of the great toe, and extending along the sole of the foot to the large tendon

attached to the heel, (*tendo achillis.*) From former experience, he was led to anticipate a long and painful confinement. This proved to be too true;—he was confined to the house from December to April, two months of the time closely to his chamber, and a great part of it, with excruciating pain, to his bed, and so helpless, as to require to be lifted on and off the bed. After this, he remained free from rheumatism, until December, 1820, while on a visit to Boston, when he had another violent paroxysm, by which he was confined to the house until the following June.

In October, 1821, with the return of the cold weather, he was again assailed by his old enemy; I saw him on the 10th of October. He had then been confined to the house three days, and part of the time in bed, with pain and swelling of nearly all the joints. There was no fever, but the knees, ancles, shoulders, elbows, wrists, and joints of the fingers, were swollen and painful. By my advice, the fumigations were applied. The beneficial effects of the remedy were soon apparent; he was at first so unwell as to be obliged to ride, but after the third application, he walked to my house. The amendment was extremely rapid. After six sittings, between the 9th and 20th of October, the disease disappeared. Since then I have frequently seen him, and he has remained very well, until April 4th; when he called and informed me, that within the last twenty-four hours, he had felt some signs of the disease, and if any thing further was observed, he should again have recourse to the fumigations; but I have heard nothing further from him—April 20th.

*Herpetic Eruption.*

A gentleman, aged about twenty-six, of remarkably correct and abstemious habits, had suffered for about eight years from an herpetic eruption, especially about the face. It consisted of clusters of small pimples, running together and forming crusts, particularly about the upper lip and chin, and extending in a circle about the mouth. The part of the face where there were no pimples, was of a deep red, almost a mahogany colour, and was unequal, rough and rigid. The margins of the eyelids were also very much diseased, of a bright red colour, and within a few months the eyes had become so much affected, that the patient could not read by candle light, without causing pain. The deformity produced by the complaint was so great, that it was distressing to the patient to expose himself in public, and had had the effect to completely drive him from the society of persons of his own age, particularly females. He had employed a great variety of remedies, and been under the care of a number of very intelligent physicians, both in Philadelphia and this city, but without experiencing more than a short temporary relief. He suffered an intolerable itching, especially over the inferior extremities at night.

On the 10th of November, he placed himself under my care, for the purpose of receiving the sulphurous fumigations, by the advice of his physician. I do not know of any attempt having been made to apply the fumes directly to the face, except by means of paper tubes. In several of the worst cases which have been related, the disease was almost exclusively confined to the face, and the cure was effected by applying the fumes to the rest of the body. But the long sufferings, and repeated disappointments, of the patient, had induced him to believe

that the remedy would be useless, unless it could be brought in direct contact with the face; and from all the circumstances, I acknowledge I was much inclined to agree with him in opinion. His great solicitude to do any thing which would give him a chance of relief, had prepared him to submit to any inconvenience for the purpose of effecting it. After several experiments I at last succeeded in forming an apparatus, by which the fumes could be brought in contact with the face without danger or serious inconvenience.

He began the fumigations on the 10th of November, decidedly the most unfavourable season; the patient, however, was steady and persevering, and the good effects were soon manifest. The eyes improved much in health and appearance; new pimples ceased to be formed, and the old ones diminished; the complexion became rather fair, and the skin lost its rough, rigid and unequal texture, and became soft, flexible and elastic.— He continued to receive the fumigations until the 23d of January, having taken thirty-two applications in the whole, when the weather became excessively cold, and as he was at the time somewhat indisposed, I advised him to suspend the fumigations. At that time the eyes were nearly well, and there was only one spot, about the size of a pea, left upon the upper lip. I did not see him for a considerable time afterwards, say six weeks, when he informed me, that after leaving off the fumigations, there was an increase of the eruption. He was then drinking a tea, recommended to him by an old lady, which he thought had been beneficial. His complexion was clear, and the disease apparently eradicated.

*Acute Rheumatism.*

A young lady in my own family, between ten and eleven years of age, had been complaining for several days of pains in the limbs, which were not considered of much importance. Nov. 26th. 1821, soon after returning from church, which was very cold, she complained of tightness across the breast, which was attended with great irregularity of the pulse. Her feet were bathed in warm water, and she was put into a warm bed; almost immediately after which, she was seized with a violent pain in the right ankle, and a sense of tightness in the left. The night was painful and restless, and in the morning the whole limb was swelled. The 27th was a very painful day, the slightest motion of the limb produced intolerable pain, some fever and loss of appetite. In the evening, the other limb became affected. The night was extremely painful, without a moment's sleep; every few minutes the limbs were seized with spasmodic contractions, which caused the most exquisite suffering, during which the screams of the little patient could be heard over the whole house. Diaphoretic medicines had been given internally and fomentations, rubefacients, &c. applied to the diseased parts, without any relief; towards the morning of the 28th, the disease had extended to the hips. Though the acute state of the disease seemed rather to forbid fumigation, yet as the case was so immediately under my own inspection, the other remedies which I had tried perfectly impotent, and the disease still extending, I was induced to try the experiment. She was accordingly taken from her bed, wrapped up in blankets, and carried to the apparatus. She had not been more than fifteen minutes in the box before she fell asleep. While she was in the

box one of the limbs being seized with a spasm, was twitched from the stool on which it had been placed; she was unable to lift it back, and was quite surprised when the nurse introduced her hand through a sliding door at the side and replaced it, to find that this could be done without causing pain. In thirty five minutes she was removed back to her bed. The relief was decided, and the day far less painful than the preceding night and day. I attempted in the evening again to apply the fumigations, but in about ten minutes she became faint, and it was necessary to remove her from the box; the night was comparatively comfortable, the spasms of the limbs being much less frequent. On the morning of the 29th the fumigations were again applied; day comfortable, spasms entirely ceased, could be moved without screaming; night excellent, turned herself several times without assistance. Nov. 30th, no pain, but the limbs swollen, and unable to support the weight of the body, fumigations again applied. After the first of Dec. the patient could walk, and soon recovered the use of the limbs and her usual health, which has since remained excellent. April 20th, 1822.

*Paralysis of the Left Arm from Acute Rheumatism.*

A lady aged about forty five, had a severe attack of acute rheumatism during the winter of 1820-21. The disease expended its greatest violence upon the left arm. After considerable suffering, the pain ceased, leaving the limb paralytic; the sensibility remained, but the power of voluntary motion was lost. From this time, April 1821, though under the care of several distinguished physicians, the limb remained in the same state. In the early part of November 1822, I was con-

sulted on the propriety of applying the sulphurous fumigations. At the time I saw the patient, she carried the arm in a sling, and the only motion which could be executed was a slight movement of the thumb and fore finger. The fingers were spread out and retracted. On attempting forcibly to move them, this, excepting the fore finger, was at first as impracticable as if the hand and fingers had been composed of a single bone. The hand could be extended slightly upon the wrist, but any attempt to exceed this limited extent of motion, produced exquisite pain. The rotatory motion of the wrist was entirely lost. The limb had become shrivelled, and had remained in this state, worse than useless, for eight months, without any amendment.

By my advice frictions were applied, twice daily, the arm covered with a roller, and the patient recommended to endeavour to move the limb. The fumigations commenced on the 9th of Nov. the most unfavourable period of the year. The beneficial effects of this treatment became soon apparent. In less than a month after she began the fumigations, this limb became as plump as the other, the motions of the fingers, wrist and elbow, gradually returned, and the muscular power was so far restored, that she was able to hold her knife and fork, to sew, pin her clothes, and lift considerable weights. Notwithstanding the severity and inclemency of the season, this lady persisted in following up the remedy with a regularity and perseverance which I have not found in any other patient, until the 25th of Feb. 1822, when the power and functions of the limb were so far restored, that I considered any further application unnecessary, and recommended their discontinuance.

